# HEALTH SERVICES IN TUBERCULOSIS CONTROL: FAMILY FOCUS AND COMMUNITY ORIENTATION

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*This study aimed to assess, according to patients' perception, the performance of the Health Services responsible for tuberculosis (TB) control, concerning the dimensions family focus and community orientation. A cross-sectional evaluative research was carried out with 108 TB patients. A questionnaire developed by Starfield and Macinko was used, adapted for TB care by Villa and Ruffino-Netto. Results evidence, in the first dimension, that health professionals (HP) are concerned with patients' signs and symptoms; and, at a lower level, with other health problems of relatives, endangering the comprehensive healthcare. In the second dimension, HP show little concern with the active search of cases, deficiency in HP training, and low rates of examined contacts. Results show the need to broaden HP's epidemiological view, as their attention is focused on patients, with few preventive actions concerning family/community. This evidences the need for a closer relationship among HP/patients/family/community.*

*DESCRIPTORS: primary health care; tuberculosis; health services evaluation*

## SERVICIOS DE SALUD PARA CONTROLAR LA TUBERCULOSIS: ENFOQUE EN LA FAMILIA Y ORIENTACIÓN PARA LA COMUNIDAD

*Se evaluó, bajo la percepción de enfermos, el desempeño de Servicios de Salud responsables por controlar la tuberculosis (TB) en las dimensiones: enfoque en la familia y orientación para la comunidad. Como método, fue utilizada la investigación evaluativa transversal con 108 enfermos de TB. Se utilizó cuestionario de Starfield y Macinko, adaptado para atender la TB por Villa y Ruffino-Netto. Los resultados apuntan que, en la primera dimensión, los profesionales de la salud (PS) demuestran preocupación con señales/síntomas de pacientes y, en menor grado, con otros problemas de salud de familiares, comprometiendo el cuidado completo. En la segunda dimensión, los PS muestran poca preocupación con la búsqueda activa de casos, con la deficiencia de capacitación de PS, y con la baja tasa de contactos examinados. Se concluye que es necesario ampliar la visión epidemiológica de PS, cuya atención está focalizada en el enfermo, con pocas acciones preventivas sobre familia/comunidad, lo que muestra que es imprescindible una mayor aproximación entre PS/enfermos/familiares/comunidad.*

*DESCRIPTORES: atención primaria de salud; tuberculosis; evaluación de servicios de salud*

## SERVIÇOS DE SAÚDE NO CONTROLE DA TUBERCULOSE: ENFOQUE NA FAMÍLIA E ORIENTAÇÃO PARA A COMUNIDADE

*O objetivo deste estudo foi avaliar, na percepção dos doentes, o desempenho dos Serviços de Saúde responsáveis pelo controle da tuberculose (TB) em relação às dimensões enfoque na família e orientação para a comunidade. Como método, foi usada a pesquisa avaliativa transversal com 108 doentes de TB. Utilizou-se questionário elaborado por Starfield e Macinko, adaptado para a atenção à TB por Villa e Ruffino-Netto. Os resultados apontam que, na primeira dimensão, os profissionais de saúde (PS) demonstram preocupação em relação aos sinais/sintomas dos pacientes e, em menor grau, sobre outros problemas de saúde dos familiares, comprometendo a integralidade do cuidado. Na segunda dimensão, os PS mostram pouca preocupação quanto à busca ativa dos casos, deficiência na capacitação de PS, baixa taxa de contatos examinados. Conclui-se pela necessidade de ampliar a visão epidemiológica dos PS, cuja atenção está focalizada no doente, com poucas ações preventivas sobre a família/comunidade, o que evidencia ser imprescindível maior aproximação entre PS/doentes/familiares/comunidade.*

*DESCRITORES: atenção primária à saúde; tuberculose; avaliação de serviços de saúde*

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Health services in tuberculosis control: family focus...
Oliveira SAC, Ruffino-Netto A, Villa TCS, Vendramini SHF, Andrade RLP, Scatena LM.

Rev Latino-am Enfermagem 2009 maio-junho; 17(3):361-7
www.eerp.usp.br/rlae

362

## INTRODUCTION

*I*nteraction among patients, health professionals (HP) and community, as well as family focus during the care process should be emphasized to ensure comprehensive and efficient care. Health services are important in this context, since they can facilitate or limit their use by patients who demand care. Thus, dealing with chronic conditions implies optimizing resources through previous planning, training HP in technical and human perspectives, emphasizing prevention in self-management and establishing strategies aiming to improve service performance[1].

It is worth highlighting that, during the last decade, Brazil experienced great changes in health system organization. Primary care received special attention because of the introduction of innovative and strategic programs to change the care model in the Unified Health System – SUS[2].

Establishing new dimensions like family focus and community orientation in primary care services is necessary to support changes in quality and strengthen commitment and involvement among HP, patients, family and community. Thus everybody can feel like "active subjects" in the search for better living conditions.

In 1992, the World Health Organization (WHO) declared tuberculosis (TB) an emergency in the world. According to its estimates, one third of the world population is infected with *M tuberculosis*. Of those, eight million will develop the disease and two million will die every year. Currently, Brazil is ranked 16th in a ranking of 22 countries concentrating 80% of global TB cases[1].

Studies show the need to create alternatives for TB control focused on participatory, collective and comprehensive health practice, connected to the community reality and able to surpass the borders of the health units (UBS). The family focus and community orientation dimensions are a new paradigm in SUS, and are essential for the reorganization of the services and in the Family Health Strategies. This focus compulsorily involves a Health Surveillance system that prioritizes the surveillance of the space/population/family/community where the disease occurs, instead of classic, patient-focused surveillance[3-4].

Due to the magnitude of tuberculosis in the above considerations, this work aimed to assess, in patients' perception, the organizational and performance characteristics of the health services responsible for tuberculosis control, in terms of family focus and community orientation, in the city of São José do Rio Preto, state of São Paulo, in 2007.

## MATERIAL AND METHOD

This is an evaluative, quantitative, cross-sectional research, using the Primary Health Care (PHC) dimensions as theoretical framework[5]. TB patients from São José do Rio Preto, a city in the Northwest of São Paulo, Brazil, with 450 000 inhabitants, were inquired.

The study sample consisted of 108 patients, under follow-up in the Tuberculosis Control Program (TCP) at the health units, from June 2006 to July 2007. The *Primary Care Assessment Tool* (PCAT) was used[5]. This instrument was adapted and validated in Brazil for TB care[6]. In a broader study, eight PHC dimensions were considered. In this study, the following dimensions were assessed: **Family focus** (using eight indicators – *HP ask information about your life and family circumstances; about diseases in your family; if people living together have cough and/ or fever; if a sputum reservoir was given to all people in the house; if health professionals know the people living with the patient; if they talk to them about your disease, your treatment and other health problems*) and the **community orientation** dimension (using five indicators – *HP ask if the services offered to solve your health problems; if you have ever observed advertisements, campaigns, educational works done by HP to inform community about TB; if HP have developed actions with churches and associations in the neighborhood to supply reservoirs to collect sputum for examination; if you have observed visits of the HP in the neighborhood to give reservoirs to collect sputum for examination; and if HP require the participation of someone from the community to discuss the TB problem*).

Interviewees answered questions according to a pre-established, Likert-type scale, ranging from 0 to 5 (0 was attributed to the answer "I do not know" or "it does not apply" and values from 1 to 5 registered the degree of preference or concordance relation with the statements). Before data collection, explanatory scripts were used to clarify patients about the questionnaire's answering scale. Interviewers

Rev Latino-am Enfermagem 2009 maio-junho; 17(3):361-7
www.eerp.usp.br/rlae

Health services in tuberculosis control: family focus...
Oliveira SAC, Ruffino-Netto A, Villa TCS, Vendramini SHF, Andrade RLP, Scatena LM.

363

explained interviewees about answers' numerical meaning (1 to 5 scores), for instance: never = 1; seldom = 2; sometimes = 3; often = 4; always = 5. Interviewers were trained before applying the instrument (questionnaire). Exploratory analysis was used to measure the categories of answers to the questionnaire questions, as well as to verify possible inconsistencies in databases. Each indicator was developed through the total scores (categories) of patients' answers, divided by the total number of interviewed patients, resulting in a mean value. Descriptive statistics was used for data analysis.

The research project was approved by the Research Ethics Committee of the University of São Paulo at Ribeirão Preto College of Nursing, according to the guidelines of Resolution 196/96 CNS (National Health Council).

## RESULTS

Characterization of TB patients

Of the 108 interviewed patients in the city, 83.3% undergo supervised treatment, of those 77.8% in the municipal reference outpatient clinic, and only 22.2% in UBS. Of the total, 65.7% are male, 66.7% have primary education (complete or incomplete), 55.6% live in owned houses and 98.1% live in masonry houses. As to socioeconomic characterization, more than 95% have piped water, refrigerator, electricity, bathroom at home and TV, 50% have car and 65%, telephone.

*Family focus dimension* – regards patients in their daily environment, taking into consideration that health needs assessment should consider the family context and any health threat, besides coping with limited family resources[5].

Figure 1 presents the frequency distribution of answers regarding care provided by HP to TB patients and their relatives.

It is observed in Figure 1 that health professionals always ask information about patients' and family's life circumstances, about diseases in the family, and cough or fever, with frequencies of 63, 65 and 69%, respectively. These percentages reflect, in a way, the concern with patients and/or their relatives. As to the *supply of reservoir for sputum examination, knowledge about relatives, if HP talk with them about the disease or treatment or about other health problems,* "always" was answered in 60 (the Ministry of Health –MS- suggests 100%), 48, 46, 46 and 16% of cases, respectively. Health professionals talk little about other health problems, compromising the comprehensive aspect of health care.
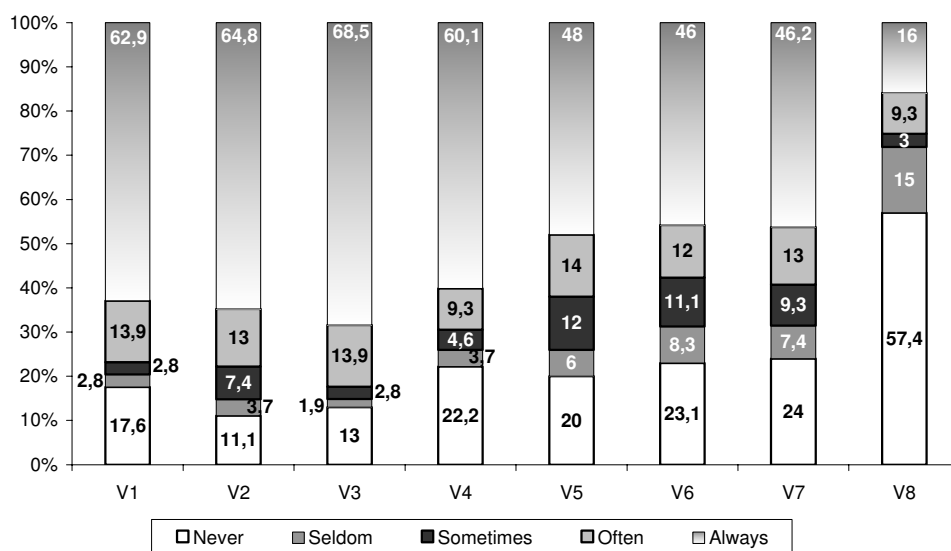


Legend: V1. Do health professionals (HP) ask about your family's life circumstances? V2. Do HP ask about diseases in the family? V3. Do HP ask if relatives have cough or fever? V4. When you got TB, did HP supply reservoirs for sputum examination to all your family members? V5. Do HP know your relatives? V6. Do HP talk to your relatives about TB? V7. Do HP talk to relatives about TB treatment? V8. Do HP talk to relatives about other health problems?

Figure 1 – Distribution of TB patients' answers regarding the family focus dimension variables. São José do Rio Preto, SP, 2007

Health services in tuberculosis control: family focus...
Oliveira SAC, Ruffino-Netto A, Villa TCS, Vendramini SHF, Andrade RLP, Scatena LM.

Rev Latino-am Enfermagem 2009 maio-junho; 17(3):361-7
www.eerp.usp.br/rlae

364

For a better understanding and illustration of such information, Figure 2 presents the variables' distribution of the confidence intervals, with regard to the *family focus dimension.*
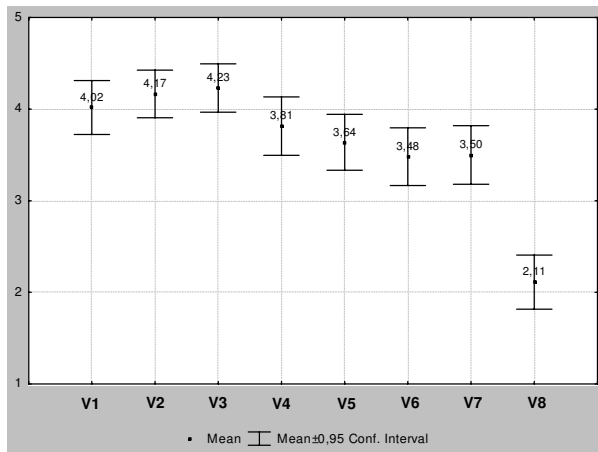


Figure 2 – Distribution of the confidence intervals of the variables regarding TB patients' answers, as to the family focus dimension, São José do Rio Preto, SP, 2007

In Figure 2, it is observed that variable V3 had the highest score, 4.23. This score presents a statistically significant difference with variables V5, V6, V7 and V8. It is also observed that there is no statistically significant difference among the variables V3, V4, V2 and V1. On the other hand, it is observed that the V8 variable had the lowest score, that is, 2.11, statistically significant different from the other variables of this dimension.

The *community orientation dimension* implies the acknowledgment that all health needs of the population occur in a specific social context, which should be known and taken into consideration[5].

Figure 3 presents the frequency distribution as to the kind of care provided by health professionals with respect to the community orientation dimension.
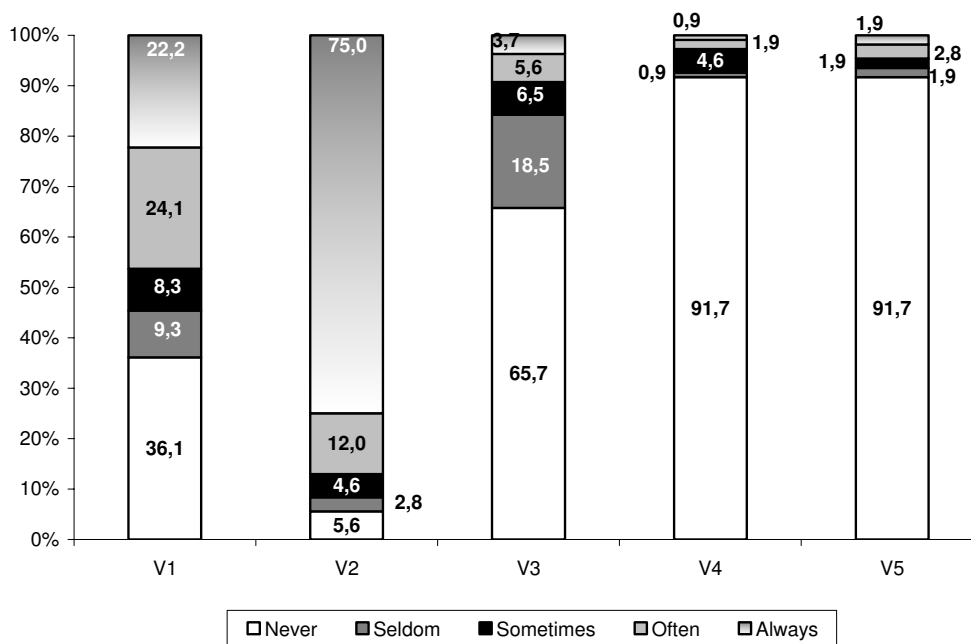


Legend: V1. Do health professionals (HP) ask if the services offered solve patients' and family's health problems? V2. Do patients observe advertisements/campaigns/educational works by HP about TB in the community? V3. Do HP provide reservoirs for sputum examination in neighborhood churches and associations? V4. Do HP visit the community to supply sputum reservoirs? V5. Do HP ask community participation to discuss the problem of TB?

Figure 3 – Distribution of TB patients' answers as to the family focus dimension variables. São José do Rio Preto, SP, 2007

In this figure, the results of question 2 stands out, that is, *if patients observe advertisements, campaigns, etc. carried out HP,* with a frequency of 75%. All other questions had very low frequencies.

Figure 4 provides a better understanding and illustration of this information, with the distribution of the variables' confidence intervals, what the *community orientation dimension* is concerned.

Rev Latino-am Enfermagem 2009 maio-junho; 17(3):361-7
www.eerp.usp.br/rlae

Health services in tuberculosis control: family focus...
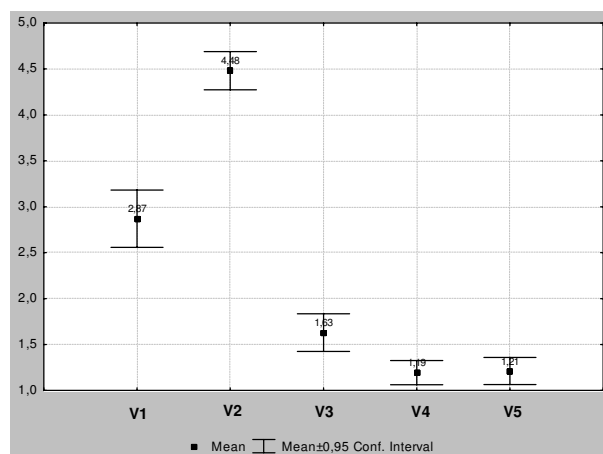Oliveira SAC, Ruffino-Netto A, Villa TCS, Vendramini SHF, Andrade RLP, Scatena LM.

365

Figure 4 – Distribution of variables' confidence intervals, with regard to TB patients answers as to the community orientation dimension, São José do Rio Preto, SP, 2007

Figure 4 shows that the variable V2 had the highest score (4.48). This variable showed a statistically significant difference from all other variables. Next, variable V1 scored 2.87. In the same way, variable V3 was also different from all others. The variables V4 and V5 had equal scores.

## DISCUSSION

Regarding the *socioeconomic and demographic factors,* studies have been carried out in the same city, addressing these epidemiological factors, focusing on the organization of the health services and structuring of the TCP. Through secondary data sources, it was observed that, despite the satisfactory socioeconomic indicators, the risk of getting TB is two times higher in the area with worse socioeconomic levels. This shows the need to change the current medical care standard, human resources training and to redirect public policies. Identifying areas with different TB risks allows the municipal health system to deal with different realities and prioritize regions with a higher incidence of the disease[7].

As to the *family focus dimension*, on the whole, health professionals are concerned with patients' signs/symptoms and, to a lesser extent, with family life circumstances and diseases, evidencing little concern with other health problems of the family.

The search for *respiratory symptomatic* (RS) patients in TB control is complex and requires

knowledge beyond technical/specific abilities. The family approach surpasses the biological knowledge. It is characterized by a sequence of activities that includes contact at home; orientation about the disease, signs and symptoms; ways of transmission; identification of RS; orientation on sputum collection; forwarding and reception of the material by the Basic Health Unit (UBS); flow of examinations to the laboratory; receiving results by the unit and users, and forwarding diagnosed cases for follow-up in outpatient clinics[8].

A study carried out in São José do Rio Preto points out data about service organization, and shows their lack of systematization in control monitoring of TB patients' contacts. Care is still patient-centered, with limited actions towards contacts and little valorization of preventive actions[9].

Shared commitment, involving health services, patients and family, is required for TB treatment success, through agreements that consider needs of all parts involved[10]. Patients and relatives should become protagonists of their own treatment and active subjects in decision-making on their therapeutic project[11].

Including relatives in treatment is an extremely important action and should be considered in all cases. The TCP team should work jointly with the UBS and PSF/PACS (Family Health Program/ Community Health Agents Program) teams.

In the *community orientation dimension*, activities that depend on patients (i.e.: observing what is offered in terms of advertisement/posters/ educational material) presented high scores. The same did not occur with the responsibility to offer services, such as RS active searching the community for sputum collection and requiring community participation to discuss TB-related health problems. HP involvement in actions to search for RS is considered their form of participating in planning and putting this activity in practice[12].

Between 1999 and 2003, the search for TB cases decreased 21% if compared to the period between 1996/1999, probably due to the emphasis of the Municipal Health Secretary on dengue control, leaving TB in second place. According to the WHO, the detection rate of baciliferous cases in TB programs with DOTS varied, in 2005, in the different world regions: from 35% in Europe to 76% in the Western Pacific, and, in Brazil, the detection rate of all TB forms was 73%, in 2005.

Health services in tuberculosis control: family focus...
Oliveira SAC, Ruffino-Netto A, Villa TCS, Vendramini SHF, Andrade RLP, Scatena LM.

Rev Latino-am Enfermagem 2009 maio-junho; 17(3):361-7
www.eerp.usp.br/rlae

366

A study carried out in São José do Rio Preto, in 2005, showed low problem solving capacity in the city's Primary Health Care network (detection through sputum baciloscopy). Bias was evidenced in health services, since 54% were forwarded by public, philanthropic and private hospitals, and only 10.7% by UBSs[9].

Low problem solving capacity was also observed in Ribeirão Preto, from 1998 to 2006 (in this period, the percentage of baciloscopies carried out varied from 15 to 26% of the expected) and the detection of new cases varied from 40 to 80.5%. These data suggest the basic health network is not searching for RS in the community[12].

Also in Ribeirão Preto, a study carried out with a group of nurses showed they believed HP's way of acting, as to RS, is directly related to the way care is delivered to patients. The active search for RS in the community occurs in a limited way or through specific demands[12].

The need to introduce new work strategies in the care model, to remodel the "old" and develop a "new" system is highlighted[13]. The traditional care model needs to be replaced by a modern model, incorporating patients' expectations, with active involvement of families and organized sectors of the community with a view to a greater inclusion of social actors in the disease's treatment, the most comprehensive dimension for the conception of the health promotion model[14].

Health services (HS) are organized to provide care in severe conditions, leaving chronic diseases in second place. Seventy-five percent of the diseases that occur in Brazil are related to chronic conditions[13].

In families facing chronic health conditions, bonding between HS and family should be prioritized. Although TB is a chronic disease, the need to train human resources suitable to achieve these aims is emphasized.

The factors most commonly associated to low effectiveness are HS's lack of organization, bad social conditions and low treatment adherence. TB control should be understood beyond a biomedical intervention and address considering patients' perspective and the context of the health practices[15].

The participation of the organized civil society and non-governmental organizations is essential in TCP activities. Social movements should work to benefit from training opportunities. There have been advances, such as the creation of the Brazilian Partnership Against Tuberculosis, by the Ministry of Health, in 2004, proposed by the Stop TB Partnership in Geneva. Besides this, there is a broad discussion of TB control strategies in Brazil, taking into consideration articulation, intersectoriality, interdisciplinarity and participation of civil society. In the current context of the fight against TB in Brazil, the performance of the community sector is beyond discussion and indispensable[16].

## FINAL CONSIDERATIONS AND CONCLUSIONS

The performance of the city in the family focus dimension showed that HP are concerned with patients' signs and symptoms and, to a lesser extent, with other health problems of their relatives, endangering comprehensive healthcare. Regarding the community orientation dimension, it is observed that HP are less concerned with the active search for cases. In the variable that requires patient observation of advertisements, scores were high, however, the same does not happen for the offering of services provided by HP.

It is important to mention that poor HP training, few RS and examined contacts, and the need for intervention strategies to improve the quality of the services offered to patients are aspects worth highlighting.

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Rev Latino-am Enfermagem 2009 maio-junho; 17(3):361-7
www.eerp.usp.br/rlae

Health services in tuberculosis control: family focus...
Oliveira SAC, Ruffino-Netto A, Villa TCS, Vendramini SHF, Andrade RLP, Scatena LM.

367

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